

CLAIMS

1. Device for recirculating oil from the area of the end face (ST) of the barrel (WB) and the peripheral surface of the roll neck (WZ) of rolling mill rolls (W), which roll neck (WZ) is supported in the bearing of a bearing chock (LES), wherein a sealing race (DLR), which is arranged between the bearing elements and the end face (ST) of the roll barrel (WB), is mounted on the roll neck (WZ), characterized by a first conical ring body (KRK1) with a conical outer surface and a cylindrical inner surface that is seated on the outer surface of the sealing race (DLR) and is sealed from said race, such that the inclination of the conical outer surface towards the end face (ST) of the barrel (WB) runs towards the roll axis (x-x), and by a second conical ring body (KRK2) that is rigidly mounted in the bearing housing and has a conical inner surface, which is arranged some distance opposite the conical surface of the first conical ring body (KRK1), such that the two conical surfaces form a hydraulic pump gap (PS) that conveys oil away from the end face (ST) of the roll barrel (WB).

2. Device in accordance with Claim 1, characterized by the fact that the admission end of the pump gap (PS) that faces the roll barrel (WB) opens in an annular admission chamber (EK),

which is formed by lateral surfaces of the first conical ring body (KRK1), which run in the radial direction relative to the axis and inclined thereto, by the radial lateral surface of a flange-like annular shoulder (RA) of the second conical ring body (KRK2), which (radial lateral surface) is arranged some distance opposite the lateral surfaces of the first conical ring body (KRK1), and by an outer surface section of the sealing race (DLR).

3. Device in accordance with Claim 1 and/or Claim 2, characterized by the fact that the outlet end of the pump gap (PS) that faces away from the roll barrel (WB) opens in an annular oil collection chamber (OSK), which is formed by a radially running lateral surface of the second conical ring body (KRK2), by a radial lateral surface of a flange-like annular shoulder (RS) that is rigidly mounted in the bearing housing and lies some distance opposite the aforesaid lateral surface of the second conical ring body (KRK2), and by a sidewall section of the first conical ring body (KRK1).

4. Device in accordance with Claim 3, characterized by the fact that radial conveying channels (FK), which are located in the bearing housing, and outlet channels (AK), which are located downstream of the radial conveying channels (FK), are assigned

to the oil collection chamber (OSK).

5. Device in accordance with one or more of Claims 1 to 4, characterized by the fact that the first conical ring body (K RK1) has an annular contact surface (ANF) that is axially spaced from the outlet end of the pump gap (PS) and runs in the radial direction relative to the axis for seating on a likewise annular seat (AUF) that runs in the radial direction relative to the axis in the stationary part of the bearing.

6. Device in accordance with Claim 5, characterized by the fact that the first conical ring body (K RK1) is made of a wear-resistant material.